

REMARKS

Claims 1-14 are in the application. Claims 1, 5-9, and 11-14 stand rejected. Claims 2-4 and 10 are objected to.

Claims 1, 6-9, and 11-13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Buglione (5,845,731), modified by Sonntag (US 6,213,233 B1). The Examiner states that Buglione teaches a cooling system for a vehicle powertrain (14) having a motor (20) and a transmission (16, 18, 24) including a stator housing (30) and cooling loop (62) "in heat conductive contact with the motor stator housing and with the transmission." The Examiner states further that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cooling system of the invention taught by Morimoto (sic) with an additional pump as taught by Sonntag. Applicants respectfully traverse this rejection and request that each of claims 1, 6-9 and 11-13 be reconsidered in view of these remarks and passed to issue over the Examiner's rejection.

Applicants respectfully submit that neither Buglione, nor Sonntag, nor for that matter Morimoto, which was cited by the Examiner in an earlier Official Action, either teach or suggest Applicants' claimed invention. As set forth in Applicants' Claims 1, 12 and 14, Applicants' cooling system for a vehicle having a motor and a transmission includes a cooling loop and heat conductive contact with the motor stator housing and with the transmission. This is set forth and described as a heat exchanger and conduits providing a fluid flow connection between the motor stator housing and the transmission and the heat exchanger. Applicants respectfully submit that Buglione, which was substituted for Morimoto in the Examiner's previous rejection, is devoid of any teaching or suggestion of a transmission cooled by a cooling loop including a motor stator housing, transmission, and heat exchanger. As support for this conclusion, Applicants point to Buglione's Figure 3 wherein his clutches 18 and 24 and gearset 16 are obviously uncooled for the simple reason that no fluid passages come into proximity of any of these components.

The Examiner's rejection is apparently founded upon Buglione's cooling passages, which are confined to cooling of the electric machines 20 and 26. There are simply no cooling passages associated with Buglione's clutches 18 and 24 and gearset 16. As a result, Buglione and Sonntag, whether taken singly or combination with each other, cannot comprise a colorable basis

for the rejection of Applicants' Claims 1, 6-9 and 11-13. These claims should therefore be passed to issue over the Examiner's rejection. Such action is earnestly solicited.

Respecting Claims 7-8, the Examiner states that Sonntag teaches that whether a mechanical or auxiliary pump is used is of no importance. Applicants note, however, that Claims 7 and 8 depend from Claim 1, which is allowable over the prior art of record, and these claims therefore should be passed to issue. Similarly, with respect to Claim 9, the Examiner dismisses the selection of temperature range for operation of the present system as being within routine skill in the art. However, Claim 9 also depends from Claim 1 is therefore allowable over the prior art of record and should be passed to issue. Such action is earnestly solicited.

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Buglione modified by Sonntag and further in view of Prabhu (US 6,670,788 B2). The Examiner has incorporated Prabhu in the rejection because Prabhu deals with a hybrid vehicle including an integrated starter generator. The fact of the matter, however, is that neither Buglione, nor Sonntag, nor Prabhu, whether taken singly or in combination with each other, either teaches or suggests the system having limitations set forth in Claim 1, from which Claim 5 depends, and as a result Claim 5 is also allowable over the prior art of record and should be passed to issue. Such action is earnestly solicited.

Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Buglione, Sonntag and Hasebe (US 6,467,286 B2). The Examiner turns to Hasebe for a cooling pump for a hybrid vehicle, controlled by a vehicle sensor. Applicants respectfully traverse this rejection and request that Claim 14 be reconsidered in view of these remarks and passed to issue over the Examiner's rejection.

As noted above, Claim 14 recites Applicants' combined motor and transmission cooling loop, which uses a fluid filled loop not found within the four corners of either Buglione or Sonntag or Hasebe. As a result, Claim 14 is allowable over the combination proffered by the Examiner and should be passed to issue over the Examiner's rejection. Such action is earnestly solicited.

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Dated : October 15, 2004

CERTIFICATE OF MAILING

I hereby certify that the enclosed Amendment is being faxed via (703) 872-9306 to Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 15th day of October, 2004.


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